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(54) Title: ASSAY

(57) Abstract: A diagnostic method for the detection of the 5T, 7T and 9T alleles in intron (8) of the human CFTR gene which method comprises contacting a test sample of nucleic acid from an individual with a multiplex of diagnostic primers comprising (i) 5T variant primer 5'(N)nAAAGAC3', (ii) 7T variant primer 5'(N*)n*(N)nAAAAGC3' and (iii) 9T variant primer 5'(N*)n*(N)nAAAATC3', wherein N represents additional nucleotides which base pair with the corresponding genomic sequence in the respective allele and n is an integer between 10 and 30 and N* represents additional non-homologous nucleotides which do not base pair with the corresponding genomic sequence in the respective allele and n* is an integer between 5 and 60, in the presence of appropriate nucleotide triphosphates and an agent for polymerisation, such that a diagnostic primer is extended only when the corresponding allelic variant is present in the sample; and detecting the presence or absence of the allelic variant by reference to the presence or absence of a diagnostic primer extension product.